

LONDON- WEST MIDLANDS ENVIRONMENTAL STATEMENT

Volume 5 | Technical Appendices

CFA8 | The Chalfonts and Amersham

Landscape report (LV-001-008)

Landscape and visual assessment

November 2013

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Department
for Transport

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High Speed Two (HS2) Limited,
Eland House,
Bressenden Place,
London SW1E 5DU

Details of how to obtain further copies are available from HS2 Ltd.

Telephone: 020 7944 4908

General email enquiries: HS2enquiries@hs2.org.uk

Website: www.hs2.org.uk

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Page number

1	Introduction	1
Part 1	Engagement with technical stakeholders	2
1	Introduction	2
Part 2	Environmental baseline report	4
1	Introduction	4
2	Landscape character assessment	4
3	Visual baseline	13
Part 3	Assessment matrices	27
1	Landscape assessment matrix	27
2	Visual assessment matrix	28
Part 4	Schedule of not significant effects	29
1	Temporary effects arising during construction	29
1.2	Landscape assessment	29
1.3	Visual assessment	29
2	Permanent effects arising during operation	30
2.1	Landscape assessment	30
2.2	Visual assessment	31
Part 5	References	36
List of tables		
Table 1:	Stakeholder engagement	2
Table 2:	Landscape assessment matrix	27
Table 3:	Visual assessment matrix	28
Table 4:	Schedule of not significant landscape effects during construction	29
Table 5:	Schedule of not significant visual effects during construction	29

Table 6: Schedule of not significant landscape effects during operation	30
Table 7: Schedule of not significant visual effects during operation	31
List of figures	
Landscape character area figures 1-8:	4-11
Viewpoint figures 9-31	13-25

1 Introduction

- 1.1.1
- The landscape and visual appendices for the Chalfonts and Amersham community forum area (CFA8) comprises:
 - a summary of engagement with technical stakeholders (Part 1);
 - an environmental baseline report (Part 2);
 - assessment matrices (Part 3); and
 - a schedule of not significant effects (Part 4).
- 1.1.2
- Maps referred to throughout the landscape and visual appendix are contained in the Volume 5, Landscape and Visual Assessment Map Book.

Part 1 Engagement with technical stakeholders

1 Introduction

1.1.1 This Section describes engagement that has been undertaken with technical stakeholders in relation to the landscape and visual assessment for CFA8.

Table 1: Stakeholder engagement

Stakeholder	Comment	Response
Chilterns Conservation Board July 2012	Stakeholder letter issued 31 July 2012. Meeting held 29 August 2012 to discuss viewpoints. Response received on the 18 September with suggested additional viewpoints. <ul style="list-style-type: none">• Harvil Road;• Denham Viaduct;• Savay Farm;• Colne Valley tow path;• Colne Valley Park no views;• Northmoor Hill Wood;• Dibden Hill;• Whielden Street;• Parsonage Wood;• Shardeloes;• South Bucks Way;• Mantles Wood;• the Hyde at Hyde End;• Cudsdens Farm;• Missenden Abbey – no view;• footpaths south of Potter Row;• Bury farm and footpath;• Potter Row; and• King’s Lane.	Proceed with viewpoints as sent out for consultation with modifications resulting from feedback and from site survey.
Buckinghamshire County Council (BuCC) August 2012	Stakeholder letter issued 15 August 2012. BuCC responded 24 October 2012 on behalf of Chiltern District Council with comments and a list of additional viewpoints: <ul style="list-style-type: none">• Whieldon Street, Amersham (photomontage requested);• Dibden Hill, Chalfont St Giles;• Parsonage Wood, Amersham;	Proceed with viewpoints as sent out for consultation with modifications resulting from feedback and from site survey.

Stakeholder	Comment	Response
	<ul style="list-style-type: none">Beacon Hill; andSharedeloes Country House, Amersham.	
Three Rivers District Council August 2012	Stakeholder letter issued 7 August 2012. Response received with suggested additional viewpoints: <ul style="list-style-type: none">Old Uxbridge Road and the properties along it;Chalfont Lane right up to and beyond the M25 on the county boundary, including the impact on all properties along it;Tilehouse Lane;the public right of way (PRoW) across the fields near Tilehouse Lane;the edge of Maple Cross at Hornhill Road and the backs of the properties in The Hawthorns;the Maple Cross JMI school site and the PRoW behind the school;West Hyde House and any other properties at the southernmost end of the district on A412; andCoppermill Lane and any particular properties along it.	Proceed with viewpoints as sent out for consultation with modifications resulting from feedback and from site survey.
South Buckinghamshire District Council October 2012	Stakeholder letter issued 10 October 2012. Response via BuCC.	Proceed with viewpoints as sent out for consultation with modifications resulting from feedback and from site survey.
Chiltern District Council October 2012	Stakeholder letter issued 9 October 2012. Response via BuCC.	Proceed with viewpoints as sent out for consultation with modifications resulting from feedback and from site survey.

Part 2 Environmental baseline report

1 Introduction

- 1.1.1
- This Section describes the baseline for landscape character areas (LCA) and visual assessment viewpoints located within the Chalfonts and Amersham study area. A summary of the landscape and visual baseline is provided in Volume 2, CFA Report 8, The Chalfonts and Amersham, Section 9. The LCA Maps LV-02-027 to LV-02-032 (Volume 5, Landscape and Visual Assessment Map Book) which are based on an aerial photograph also help to provide an overview of the character of the area illustrating the pattern of development, distribution of open spaces and spread of vegetation.
- 1.1.2
- This Section is organised as follows:
 - information on each LCA identified within the study area including a description of the area and an analysis of the condition, tranquillity, value and sensitivity of each LCA. These are ordered from south to north along the route of the Proposed Scheme;
 - information on the nature of the existing views towards the Proposed Scheme from identified representative visual assessment viewpoints during both winter and summer and day time and night-time where relevant. These are ordered from south to north along the route of the Proposed Scheme; and
 - future baseline conditions are also described.

2 Landscape character assessment

- 2.1.1
- The LCA have been determined with reference to a number of published studies at the national, county and local level. Those of relevance to the study area are described below:
 - The Natural England National Character Area 115: Thames Valley¹ which summarises the area as hydrological floodplain of the River Thames with large areas of fragmented poor agricultural land and high urban development;
 - The Natural England National Character Area 110: Chilterns² which summarises the areas as chalk hills and plateau with prominent escarpment in many places and extensive dip slope with numerous dry valleys;
 - The Hertfordshire Landscape Character Assessment³. The study area lies within the Maple Cross Slopes North LCA which is described as strong east facing slopes with snaking dry valleys pushing westwards with visually prominent urban developments;
 - South Buckinghamshire District Council Landscape Character Assessment⁴ which divides the district into 15 character areas, three of which are included in the assessment; and
 - Chiltern District Landscape Character Assessment⁵ which divides the district into 18 character areas six of which are included in the assessment.
- 2.1.2
- Descriptions of all the LCA identified within the study area are provided below. The LCA are shown on Maps LV-02-027 to LV-02-032 (Volume 5, Landscape and Visual Assessment Map Book). A summary description of the LCA most likely to be affected is included in Volume 2, CFA Report 8, Section 9.
- 2.1.3
- Where LCA are located across boundaries between other CFA (i.e. CFA7 Colne Valley and CFA8 The Chalfonts and Amersham) the baseline descriptions for these LCA are reported in each CFA section in their entirety.

¹ Natural England (2012), *The Natural England National Character Area 115: Thames Valley*

² Natural England (2013), *The Natural England National Character Area 110: Chilterns*

³ Hertfordshire County Council (2001), *The Hertfordshire Landscape Character Assessment*

⁴ Land Use Consultants (2011), *South Buckinghamshire District Council Landscape Character Assessment*

⁵ Land Use Consultants (2011), *Chiltern District Landscape Character Assessment*

Maple Cross Slopes North LCA

This LCA is located to the west of the Colne Valley floodplain and south of Chorleywood and Rickmansworth. To the south and west the county boundary marks the approximate extent of the LCA. The area has strong east-facing slopes with twisting dry valleys pushing westwards. The fields towards the M25 become significantly larger with minimal hedge line separation. Roads are often sunken within the raised undulating landscape of these adjacent fields.

There are visually prominent urban developments on the lower slopes and along the A412 corridor including the villages of Maples Cross up towards Rickmansworth and Chorleywood. Woodland areas are concentrated on the slopes of narrow dry valleys to the west whilst the M25 with its associated traffic and infrastructure forms a major feature on the skyline. Views contain the upper slopes to the east across the Colne Valley towards Mount Pleasant and Harefield and these are characteristic of the LCA.

Landscape condition

The majority of the landscape is farmland characterised by both arable and pastoral well maintained fields. To the east of Chalfont St Peter the farmland is punctuated by managed woodland. The landscape condition is assessed as being fair.

Tranquillity

The area is located to the west of the Colne Valley floodplain and comprises predominantly large open arable fields. There is prominent urban development on lower valley slopes and along the A412. The M25 also influences audible tranquillity as it can be heard to differing degrees throughout the landscape. The area has a relatively low tranquillity due to urban and transport influences.

Landscape value

Located within the green belt the landscape character is considered to be of regional value.

Sensitivity

Due to the fair condition, low tranquillity and a value at the regional level this character area has a medium sensitivity to change.

Figure 1: Maple Cross Slopes North LCA Date taken: 23 August 2012. Nikon D3200 50mm lens



Chalfont St Peter North LCA

Within the LCA the landscape is elevated and sloping in nature as it falls towards the Colne Valley to the east. Land use is mixed with the urban area of Chalfont St Peter and arable farmland dominating the scene. The village of Hornhill and Buckinghamshire New University sit in the upper reaches of the LCA.

Agricultural fields are interspersed with individual and small groups of properties. A number of small to medium woodland plots can be found throughout the LCA with Bottom Wood being the largest. The Old Shire Lane (Path) and other PRoW cross the area.

The M25 forms the eastern boundary to the Chalfont St Peter North LCA as it passes through the landscape in cutting. Other roads within this area are more rural in nature linking Chalfont St Peter with Maple Cross and the eastern side of the Colne Valley. The characteristic landform comprises steep sides with protruding spurs and a strong convex profile to the upper slopes.

Landscape condition

The predominant land use within the LCA is farmland characterised by both arable and grazed well maintained fields with well-maintained hedgerows between agricultural fields. To the east of Chalfont St Peter there are managed woodland blocks. Within the predominantly agricultural landscape there are noticeable elements of mineral extraction. The settlement of Chalfont St Peter is bordered by trees and hedgerows. The components are relatively well maintained; therefore the LCA is assessed as being fair.

Tranquillity

Due to the influences associated with the imposing M25 transport infrastructure and associated vehicular traffic the LCA is considered to have a low level of tranquillity.

Landscape value

The LCA lies within the green belt and is therefore considered of regional value.

Sensitivity

Due to the fair landscape condition, low tranquillity and regional value the LCA has a medium sensitivity to change.

Figure 2: Chalfont St Peter North LCA Date taken: 11 June 2013. Nikon D3200 50mm lens



Lower Misbourne North LCA

The Lower Misbourne North LCA is located to the west of numerous dry valleys within the Chalfont St Peter North LCA. The narrow and shallow valley is dominated by the settlements of Chalfont St Peter and Gerrards Cross. The River Misbourne itself is not a highly visible feature in this part of the LCA as it is contained within settlement.

Chalfont St Peter sits within the Lower Misbourne North LCA as well as the Chalfont St Peter North LCA spanning the west side of the valley with the A413 running along the valley bottom, forming a spine up through the LCA. The widths of the valleys vary but are generally narrower than the river valleys in the Colne Valley. The dip slope is relatively shallow and the interval between valleys can be wide giving a plateau feel. Away from major settlement Gerrards Golf Course presents a more open and recreational green space. The northern section of the LCA becomes slightly less developed towards Chalfont St Giles with agricultural fields and small woodland plots to the west of Chalfont St Peter. The South Bucks Way and several other PRoW traverse the valley.

Landscape condition

The predominant features within the LCA are the settlements of Chalfont St Peter and Chalfont St Giles which have relatively well maintained streets and gardens. The surrounding grazing land is also relatively well maintained bordered by clipped hedgerows. To the south-east of the LCA is the regularly maintained Gerrards Cross Golf Course. The landscape condition is assessed as being fair.

Tranquillity

Given the presence of agricultural land there are rural qualities to the landscape, however, the presence of Gerrards Cross and Chalfont St Peter result in a low sense of seclusion. Tranquillity levels are therefore assessed as being low.

Landscape value

In addition to the PRoW and Gerrards Cross Golf Course the area is also within the green belt and is therefore of regional value.

Sensitivity

Due to the fair landscape condition in conjunction with low levels of tranquillity and regional landscape value this character area has a medium sensitivity to change.

Figure 3: Lower Misbourne North LCA Date taken: 23 August 2012. Nikon D3200 50mm lens



Little Chalfont LCA

The LCA is defined on its southern edge by large blocks of woodland some of which are designated as ancient including Shrubs Wood, Philipshill Wood and Pollards/Baileys Wood. The LCA has several dry valleys which are generally narrow and run north to south through the landscape. The main settlement of Little Chalfont within the LCA is heavily screened from the south by interconnected woodland and the settlement patterns become more fragmented within this area. The field patterns to the northern edge of the LCA are small to medium in scale bordered by dense hedge lines.

Landscape condition

There is a high proportion of woodland within this LCA the majority of which is designated as ancient and appears to be well managed. Several woodland areas have well maintained PRow passing through them. The grazed land adjacent to the woodland is defined by well maintained mixed species hedgerows. The area is within the designated landscape of the Chilterns area of outstanding natural beauty (AONB) and the overall landscape condition is good.

Tranquillity

Land use is a mix of settlements, agricultural land and woodland. The landscape has a high sense of enclosure given the dominant presence of woodland with some areas of high seclusion. The presence of the A404 and Marylebone to Aylesbury Line reduces the level of local tranquillity resulting in a medium level of tranquillity overall.

Landscape value

The LCA has numerous PRow which dissect the landscape used by people enjoying the landscape and is located within green belt and the Chilterns AONB. It is therefore considered to be of national value.

Sensitivity

Given the medium level of tranquillity combined with good landscape condition and national value the Little Chalfont LCA is considered to have a high sensitivity to change.

Figure 4: Little Chalfont LCA Date taken: 23 July 2012. Nikon D3200 50mm lens



Layters Green LCA

Chalfont St Giles, Seer Green and Jordans form the main settlements within this LCA. The southern area of Chalfont St Giles rises up the side of the valley to the ridge and beyond. The landscape is a mixture of arable land and smaller areas of pasture land which contain pockets of woodland. Fields around settlements are medium to small in scale with dense hedgerows and intermittent trees. Golf courses also feature within the landscape.

Landscape condition

The landscape is a mixture of well maintained arable land and smaller areas of pasture land which contain pockets of woodland. The consistency of field pattern and land cover contributes to a strong sense of visual unity. The well-maintained Oakland Park Golf Course is in the middle of the LCA and the overall landscape is of good condition.

Tranquillity

The area affords a medium degree of enclosure created by small field patterns with vegetated boundaries. This considered alongside the agricultural landscape and the dominant presence of overhead power lines creating a strong vertical and horizontal element within the landscape leads to an overall medium level of tranquillity.

Landscape value

The Layters Green LCA is within green belt and the Chilterns AONB and is therefore of national value.

Sensitivity

Due to the good landscape condition, medium tranquillity and the presence of both the Chilterns AONB and green belt designations the overall sensitivity to change is considered to be high.

Figure 5: Layters Green LCA Date taken: 23 August 2012. Nikon D3200 50mm lens



Misbourne Upper South LCA

This LCA follows one of the largest valleys cut into the Chilterns dip slope. The majority of the valley is rural in character with the exception of Amersham Old Town and the southern edge of Amersham.

There are numerous prominent woodland blocks including designated ancient woodland scattered throughout the LCA. Un-wooded valley sides are largely used for intensive arable production. Fields are typically medium to large regular in shape, bounded by strong hedges highlighting the folds in the landform and creating a cohesive pattern. Where hedges have been lost the landscape appears comparatively unstructured especially where the valley widens or is less well defined and woodland cover is lower. This can be seen in the Misbourne Valley below Amersham.

The valley contains the River Misbourne, the A413 road and the Marylebone to Aylesbury Line. Narrow winding roads with strong hedgelines run up the valley slopes connecting with woodland blocks.

Landscape condition

The LCA follows the Misbourne valley which forms a field pattern and landcover which contributes to a strong sense of visual unity. The LCA contains a small part of the large Grade II* registered park and garden of Shardeloes. There are very few visual detractors other than the transmission towers which cross the landscape. The overall condition of this landscape is considered to be in good condition.

Tranquillity

The predominantly rural character containing some urban settlements with a main road and section of railway route results in an area of medium tranquillity.

Landscape value

The Misbourne Upper South LCA is within a designated green belt as well as the Chilterns AONB and is therefore considered to be of national value.

Sensitivity

Due to the good condition, medium tranquillity and value at a national level this character area has a high sensitivity to change.

Figure 6: Misbourne Upper South LCA Date taken: 21 August 2012. Nikon D3200 50mm lens



Penn South LCA

Penn South LCA is characterised by large scale rolling topography. The dip slope of the Chilterns is incised by numerous dry valleys creating an undulating pattern of valleys and ridges. Winchmore Hill and Coleshill are the two main settlements within this character area.

Farming is predominantly arable with medium to large fields bounded on upper sides by woodland. Other field boundaries are mainly poor over cut hedgerows often replaced by post and wire fencing. Smaller pasture fields with densely vegetated boundaries are located close to fragmented settlements. There are varying sizes of designated ancient woodland blocks including Brentford Wood, West Wood, Herts Wood and the large Hodgemoor Wood.

The A413 and A335 move through the area linked by interconnecting narrow winding country roads and tracks. Electricity pylons pass through the area bringing a strong vertical element to the rolling landscape.

Landscape condition

The LCA consists of small settlements surrounded by a pastoral landscape with well-maintained ancient woodland and some areas of arable land. A small part of Shardeloes large registered park and garden is located within the LCA. Its grounds are made up of well managed grazing land and a historically landscaped and well maintained garden. A well balanced, uniform and high quality landscape dominates the area and the LCA is considered to be in a good condition.

Tranquillity

The landscape comprises arable and pastoral fields with large pockets of woodland creating a high level of seclusion within the landscape. Within the predominantly agricultural landscape there are some small settlements and individual properties. The area is served by one A road the A355 and has numerous electric pylons crossing the landscape. The tranquillity level is assessed as being medium.

Landscape value

Penn South LCA has a dense network of PRoW including the Chiltern Way National Trail which offers attractive recreational opportunities. The Penn South LCA is also within green belt and the Chilterns AONB and is therefore of national value.

Sensitivity

Due to the good condition, medium tranquillity and national value the overall sensitivity to change of the character area is considered to be high.

Figure 7: Penn South LCA Date taken: 23 August 2012. Nikon D3200 50mm lens



Hyde Heath South LCA

The LCA is predominantly on a plateau adjacent to Misbourne Valley. The town of Amersham is within the LCA with areas of agricultural land to the south of the settlement. Amersham is outside the Chilterns AONB and rises up the valley standing on a plateau.

Parcels of agricultural land and woodland plots lie to the west and eastern extents of the LCA buffering Amersham. The fields are a mix of large arable and small pasture with dense hedgerows and intermittent trees.

The Marylebone to Aylesbury Line traverses the landscape from east to west. Several A roads are found in and around Amersham with some rural roads on the periphery of the LCA.

There is a network of PRoW that cross through and around the periphery of Amersham itself and out across a more open and rural landscape.

Landscape condition

The presence of a strong hedgerow pattern and noticeable woodland cover is in good condition. The LCA consists predominantly of the settlement of Amersham. The landscape condition is assessed as fair.

Tranquillity

The LCA consists predominantly of the settlement of Hyde Heath and will have higher levels of vehicular traffic than the surrounding rural areas. Also within the LCA is the Marylebone to Aylesbury Line bringing increased levels of noise. The dominance of the Amersham within the LCA results in a low level of tranquillity.

Landscape value

The LCA is partially located within green belt and the Chilterns AONB although the settlement of Amersham is outside the boundaries of both designated landscapes Hyde Heath South LCA is assessed as being of national value.

Sensitivity

Due to the fair condition, low tranquillity and national value the overall sensitivity to change of the character area is considered to be medium.

Figure 8: Hyde Heath South LCA Date taken: 24 July 2012. Nikon D3200 50mm lens



3 Visual baseline

- 3.1.1 Descriptions of the identified representative viewpoints are provided below. The viewpoints are shown on Maps LV-07-027 to LV-07-032 and LV-08-027 to LV-08-032 (Volume 5, Landscape and Visual Assessment Map Book). For each viewpoint the first part of the baseline description relates to the view during winter, the second part relates to the summer view for viewpoints considered in the operational assessment and where relevant, the third part relates to the view at night-time.
- 3.1.2 Photographs have been included to represent the view from visual receptors during winter and where relevant, summer. For some visual receptors no appropriate location from which to capture a representative photograph of the view was available therefore no photographs have been included and the assessment has been undertaken based on professional judgement.
- 3.1.3 The number identifies the viewpoint locations which are shown on Maps LV-07-027 to LV-07-032 and LV-08-027 to LV-08-032 (Volume 5, Landscape and Visual Assessment Map Book). In each case, the middle number (xxx.x.xxx) identifies the type of receptor as follows:
1. protected views - none of these receptor types have been identified within the study area;
 2. residential views - these have a high sensitivity to change as attention is often focused on the landscape surrounding the property rather than on another focused activity (as would be the case in predominantly employment or industrial areas);
 3. recreational views - these receptors (apart from those engaged in active sports) generally have a high sensitivity to change as attention is focused on enjoyment of the landscape. Tourists engaged in activities whereby attention is focused on the surrounding landscape or townscape also have a high sensitivity to change;
 4. transport views - travel through an area is often the means by which the greatest numbers of people view the landscape. Because of the glimpsed nature of the view from trains or vehicles, people travelling through an area on main roads have a low sensitivity to change, while those on scenic routes have a medium sensitivity. People travelling through urban areas (including pedestrians where the focus is not in recreation) generally have a low sensitivity to change although in residential areas this increases to medium;
 5. hotels and healthcare institutions - people staying in hotels and healthcare institutions have periods of time when their attention may be focused on the landscape, whilst at other times attention is more likely to be focused on other activities. Based on the level of interaction with the surrounding landscape, these receptors have a medium sensitivity to change;
 6. employment - people at work and within educational institutions are the least sensitive receptors as their attention is likely to be focused on their work activity. These receptors have a low sensitivity to change; and
 7. active sports - people engaged in active sports have a low sensitivity to change as their attention is likely to be focused on their activity. None of these receptor types have been identified within the study area.

Viewpoint o61.2.001: View north-east from Denham Lane to north-east of Chalfont St Peter

This viewpoint is representative of the typical view attained from residential properties along Denham Lane to the north-east of Chalfont St. Peter.

Winter

The foreground view of a hedgerow and intermittent trees is not depicted in this photograph as it was taken through a gap in the hedgerow. The location provides filtered long distance views through tree lined hedgerows across Denham Lane and the adjacent agricultural fields towards the M25. The middle ground comprises predominantly open agricultural fields with the M25 hidden by intervening topography (illustrated in Figure 9). A small cluster of trees is visible just over the brow of the hill to the right of the view.

Summer

Hedgerow and trees are not depicted within this photograph (illustrated in Figure 10) as it was taken through an opening in the hedgerow. In summer the trees within the hedgerow along Denham Lane further filter and partially screen views from adjacent properties. In the middle ground views of open agricultural fields can be seen. Electricity pylons running parallel to the M25 are evident in the background view. Views from upper storey windows will be less filtered by intervening vegetation.

Night-time

At night the foreground view has intermittent lighting from passing vehicles along Denham Lane. The middle ground is dark with unlit agricultural fields partially screening the M25 traffic lighting. The lighting columns along the M25 are evident above the ridge in the middle ground of the view.

Figure 9: Viewpoint o61.2.001 – winter view Date taken: 5 February 2013. Nikon D3200 50mm lens (stitched panorama)



Figure 10: Viewpoint o61.2.001 – summer view Date taken: 23 August 2012. Nikon D3200 50mm lens (stitched panorama)



Viewpoint o61.2.002: View east from properties adjacent to Shire Lane

This viewpoint is representative of the view from residents of the Orchards Caravan Site taken from Shire Lane.

Winter

Not depicted in this view are the foreground filtered views through adjacent M25 vegetation. The foreground of the view consists of the M25 and associated traffic and highways infrastructure including gantries and lighting columns. The middle ground view towards open agricultural fields is partially filtered by roadside vegetation. In the background of the view on the higher ground there are large areas of woodland (illustrated in Figure 11) defining the limit of the view.

Summer

In the summer intervening vegetation further filters views across the landscape (illustrated in Figure 12). Views to the south are more easily afforded due to the less dense field boundary vegetation.

Figure 11: Viewpoint o61.2.002 – winter view Date taken: 5 February 2013. Nikon D3200 50mm lens (stitched panorama)



Figure 12: Viewpoint o61.2.002 – summer view Date taken: 14 June 2013. Nikon D3200 50mm lens (stitched panorama)



Viewpoint 064.2.001: Views south-east from Hornhill Road, Shire Lane Path representative of residential properties on the southern edge of Horn Hill

This viewpoint is representative of the outlook from residential properties along Shire Lane off Horn Hill Road .

Winter

Elevated views towards the middle ground are filtered through foreground garden and roadside vegetation not depicted in this photograph. The middle ground captures agricultural fields either side of the M25 corridor and the background view is focused on the Colne Valley and the settlement of Harefield in the distance (illustrated in Figure 13). During winter the presence of the M25 motorway corridor and associated infrastructure is far more prominent due to the lack of screening afforded by the growing crops. The large pylons in the middle ground of the view present a strong vertical element within the landscape breaking the horizon.

Summer

The garden and roadside vegetation further filters and partially screens views across the adjacent agricultural fields and the Colne Valley in the background. Views from upper storey windows are more open resulting in middle ground and background views across to agricultural fields on the far side of the M25 (illustrated in Figure 14).

Night-time

At night foreground lighting levels are low from adjacent properties and infrequent local traffic along Horn Hill Road. The middle ground view is set in darkness apart from lighting associated with traffic travelling along the M25. The background contains elements of scattered lighting from buildings within the densely wooded valley hillside and from Harefield in the distance.

Figure 13: Viewpoint 064.2.001 – winter view Date taken: 5 February 2013. Nikon D3200 50mm lens (stitched panorama)



Figure 14: Viewpoint 064.2.001 – summer view Date taken: 13 June 2013. Nikon D3200 50mm lens (stitched panorama)



Viewpoint o65.3.001: View north from PRow (Footpath CSG/32/1)

This viewpoint is representative of typical views available from PRow (Footpath CSG/32/1).

Winter

The foreground view comprises an open agricultural field with a small woodland block to the north forming a vegetated back drop to the scene (illustrated in Figure 15). Filtered views can be afforded through field boundary vegetation in winter.

Summer

The summer view is not as open as in winter months. Vegetation immediately adjacent to the PRow which forms the field boundary becomes denser and offers greater canopy cover and visual screening (illustrated in Figure 16).

Figure 15: Viewpoint o65.3.001 – winter view Date taken: 19 February 2013. Nikon D3200 50mm lens (stitched panorama)



Figure 16: Viewpoint o65.3.001 – summer view Date taken: 14 June 2013. Nikon D3200 50mm lens (stitched panorama)



Viewpoint 065.4.002: View west from Chesham Lane

This viewpoint is representative of the view gained by road users on Chesham Lane looking north-west.

Winter

In the foreground there are filtered and glimpsed views through boundary vegetation along Chesham Lane to an agricultural field in the middle ground (photo graph taken from gap in hedge). The background views contain open pasture land with field boundary vegetation (illustrated in Figure 17). The boundary vegetation on the far side of the field allows a glimpsed view of properties in the distance.

Summer

Roadside vegetation along Chesham Lane during the summer months further restricts middle ground views and beyond (illustrated in Figure 18). The dense field boundary vegetation which includes mature broadleaf trees largely screens the view beyond.

Figure 17: Viewpoint 065.4.002 – winter view Date taken: 5 February 2013. Nikon D3200 50mm lens (stitched panorama)



Figure 18: Viewpoint 065.4.002 – summer view Date taken: 14 June 2013. Nikon D3200 50mm lens (stitched panorama)



Viewpoint 065.2.003: View north from Chesham Lane at the northern edge of Chalfont St Peter.

This viewpoint is located on Chesham Lane and is representative of the views from residential properties and a sports field to the north of Chalfont St Peter.

A single photograph has been used to illustrate the winter and summer view as there is no change to the view in summer.

Winter

The foreground and middle ground views are of Chesham Lane which is enclosed and narrowed by adjacent trees and hedgerows. The views from residential properties contain garden and field boundary vegetation. Upper storey windows provide extended views through adjacent vegetation across fields on the northern edge of Chalfont St Peter along Chesham Lane (illustrated in Figure 19).

Summer

In the summer views along the road are further narrowed by adjacent roadside trees and shrubs encroaching Chesham Lane. The views from residential properties are filtered through garden and field boundary vegetation. Upper storey window views have a more open view over garden and field boundary vegetation in the foreground and middle ground of the view.

Figure 19: Viewpoint 065.2.003 – winter view Date taken: 6 February 2013. Nikon D3200 50mm lens (stitched panorama)



Viewpoint 071.2.001: View north-west from Bottom House Farm Lane.

This viewpoint is representative of views from residential properties along Hill Farm Lane south of Bottom House Farm Lane.

Due to no publically accessible location being available, it has not been possible to capture a photograph from this viewpoint.

Winter

Fragmented foreground views through garden and field boundary vegetation are available of the landscape beyond. The filtered middle ground view comprises agricultural fields. In the background there are filtered views to agricultural fields on rising valley slopes. Upper storey windows have more open views across the landscape towards than those located at ground floor levels.

Summer

In summer there is potential for afforded views from upper storey windows of residential properties close to Bottom House Farm Lane looking north-west across adjacent pastureland. The intervening vegetation partially screens and blocks views across the adjacent agricultural fields.

Viewpoint 071.3.002: View north from PRow (Footpath Col/2/2).

This viewpoint is representative of views from the PRow (Footpath Col/2/2).

Due to no publically accessible location being available, it has not been possible to capture a photograph from this viewpoint.

Winter

Open foreground and middle ground views are available across agricultural fields from this location. Upper Bottom House Farm and associated agricultural buildings are also evident within the middle ground of the view. In the distance views are of gently rising hills with woodland blocks and field boundary vegetation.

Summer

During the summer months vegetation further screens views towards the background of the view. In the foreground there is little intervening vegetation between the PRow and middle ground and as such the view remains similar to that experienced during the winter months.

Viewpoint 072.2.001: View west from Bottom House Farm Lane.

This viewpoint is representative of the typical view from Bottom House Farm.

Due to no publically accessible location being available, it has not been possible to capture a photograph from this viewpoint.

Winter

Foreground views are available over the properties garden and grazing land from Bottom House Farm Lane looking west. To the west there is a small woodland belt within the middle ground of the view. The background view comprises gently rising agricultural fields separated by dense vegetated field boundaries.

Summer

During the summer, foreground and middle ground views from this location are further filtered by garden and field boundary foliage. The woodland block to the north of Bottom House Farm Lane partially screen and blocks views to the north west across gently rising agricultural fields. Upper storey windows enable elevated views over hedgerows in the adjacent fields.

Viewpoint 077.4.001: View north-east from New Road north of Coles Hill

This viewpoint is representative of views attained by road users on New Road south-west of Amersham old Town.

Winter

Foreground and middle ground views over open pasture land are lightly filtered by hedgerow vegetation along New Road (illustrated in Figure 20). Glimpsed views through foreground hedgerow vegetation are available towards Old Amersham Town in the background.

Summer

The view from New Road Lane is further filtered by roadside vegetation during the summer months. The middle ground and background views do not greatly change during the summer (illustrated in Figure 21).

Figure 20: Viewpoint 077.4.001 – winter view Date taken: 5 February 2013. Nikon D3200 50mm lens (stitched panorama)



Figure 21: Viewpoint 077.4.001 – summer view Date taken: 13 June 2013. Nikon D3200 50mm lens (stitched panorama)



Viewpoint 077.4.002: View west from Whielden Lane to the south of Amersham Old Town

This viewpoint is representative of the typical view attained by road users on Whielden Lane to the south of Amersham old Town.

Winter

This viewpoint is located on Whielden Lane looking north-west. The foreground of the view consists of road verge and dense deciduous woodland (as illustrated in Figure 22). The vegetation is approximately 65m deep and screens views to the landscape beyond.

The short distance view is dominated by the leafless deciduous woodland which screens views beyond to the middle and longer distance.

Summer

During the summer views are heavily enclosed by existing dense woodland and scrub vegetation in full leaf (illustrated in Figure 23).

Figure 22: Viewpoint 077.4.002 – winter view Date taken: 5 February 2013. Nikon D3200 50mm lens (stitched panorama)



Figure 23: Viewpoint 077.4.002 – summer view Date taken: 14 June 2013. Nikon D3200 50mm lens (stitched panorama)



Viewpoint 078.2.001: View south-west from Piggotts Orchard

This viewpoint is representative of the outlook from the southern edge of the properties at Piggotts Orchard.

Winter

There are elevated middle distance views available through garden vegetation towards the valley beyond. Views are available over pastoral fields in the foreground with middle ground views towards the roof tops of Amersham Old Town and the wooded valley slopes beyond (illustrated in Figure 24). During winter the vegetative screen remains dense despite leaf loss.

Summer

In the summer elevated and interrupted views are available from the upper storey windows of properties on Piggotts Orchard towards Amersham Old Town within the valley. Garden and field boundary vegetation provides further partial screening of the valley during the summer months. In the background views contain sloping agricultural fields and dense blocks of woodland are available (illustrated in Figure 25).

Figure 24: Viewpoint 078.2.001 – winter view Date taken: 5 February 2013. Nikon D3200 50mm lens (stitched panorama)



Figure 25: Viewpoint 078.2.001 – summer view Date taken: 21 August 2012. Nikon D3200 50mm lens (stitched panorama)



Viewpoint 078.3.002: View west from PRow (Footpath AMS/21/3) to the south of Amersham Old Town

This viewpoint is representative of the view from users of PRow (Footpath AMS/21/3) which runs across agricultural fields.

Winter

There are middle ground views of roadside vegetation and a woodland block which runs alongside the existing road network available from this location. The background includes the opposite valley slope and a large area of woodland on the hill top (illustrated in Figure 26).

Summer

During summer the view is not greatly altered as no intervening vegetation exists within the agricultural field (illustrated in Figure 27). Roadside vegetation in leaf, however, narrows the available view of the road and roundabout in the middle ground. In addition the view into the valley floor is partially reduced in the few months when crops are at their most mature prior to harvest.

Figure 26: Viewpoint 078.3.002 – winter view Date taken: 4 February 2013. Nikon D3200 50mm lens (stitched panorama)



Figure 27: Viewpoint 078.3.002 – summer view Date taken: 13 June 2013. Nikon D3200 50mm lens (stitched panorama)



Viewpoint 078.3.003: View south-west from PRow (Footpath AMS/6/3) west of Amersham

This viewpoint is representative of the view from users of PRow (Footpath AMS/6/3) which runs across agricultural fields towards Amersham Old Town.

Winter

There are open views from the PRow stretching across agricultural fields to scattered woodland blocks, the settlement of Amersham Old Town within the valley and rising agricultural fields beyond (illustrated in Figure 28).

Summer

During summer the view is not greatly altered due to the lack of intervening vegetation in the agricultural field within the foreground view (illustrated in Figure 29). Longer distance views, however, become more filtered by intervening field boundary vegetation and trees within Amersham Old Town itself.

Figure 28: Viewpoint 078.3.003 – winter view Date taken: 5 February 2013. Nikon D3200 50mm lens (stitched panorama)



Figure 29: Viewpoint 078.3.003 – summer view Date taken: 13 June 2013. Nikon D3200 50mm lens (stitched panorama)



Viewpoint 078.5.004: View south-west from Amersham Hospital.

Due to no publically accessible location being available, it has not been possible to capture a photograph from this viewpoint.

Winter

Filtered views through adjacent road side vegetation towards the A413 Amersham Road. There are filtered views of gently sloping agricultural fields and woodland on the tops of hills. The roadside embankment and dense vegetation screens the lower level views.

Summer

During the summer months vegetation further screens views towards the agricultural fields and woodland in the background. The view of the skyline becomes more obscured by intervening vegetation during the summer months.

Viewpoint 081.3.001: View north-west from PRoW (Footpath AMS/26/3) South Bucks Way within the grounds of Shardeloes

This viewpoint is representative of the typical view attained from users of the local PRoW (Footpath AMS/26/3) South Bucks Way within the grounds of Shardeloes country house.

Winter

The viewpoint is located on the PRoW within Shardeloes’ grounds. The foreground of the view comprises of open sloping pastoral fields either side of the River Misbourne. The traffic passing along the A413 in the middle ground is partially visible through roadside vegetation. In the background there are blocks of deciduous woodland including Keepers Wood located at the higher ground on the opposite side of the valley (illustrated in Figure 30). During winter the extensive woodland and small groups of trees remain as prominent features within the view.

Summer

In the summer elevated foreground views over grazing fields remain unchanged although the river itself becomes largely screened by herbaceous vegetation (illustrated in Figure 31). Roadside and woodland vegetation becomes a dominant component of the middle ground and background view. Vegetation alongside the A413 largely screens passing traffic.

Figure 30: Viewpoint 081.3.001 – winter view Date taken: 5 February 2013. Nikon D3200 35mm lens (stitched panorama)



Figure 31: Viewpoint 081.3.001 – summer view Date taken: 13 June 2013. Nikon D3200 35mm lens (stitched panorama)



Part 3 Assessment matrices

1 Landscape assessment matrix

1.1.1 Table 2 summarises the assessment of significance for all the LCA identified within the study area. These are ordered from south to north along the route of the Proposed Scheme. The assessment of significant effects is presented in Volume 2, CFA Report 8, Section 9. Not significant effects (minor or negligible) are summarised in Part 4 of this volume. For some LCA it has been identified that no further assessment is required in one of the assessment years. This is on the basis that through application of professional judgement it has been determined that no significant effects would occur and therefore no further assessment has been undertaken.

Table 2: Landscape assessment matrix

Landscape character area	Construction	Operation year 1 (2026)	Operation year 15 (2041)	Operation year 60 (2086)
Maple Cross Slopes North LCA	Moderate adverse	Minor adverse	Negligible	Negligible
Chalfont St Peter North LCA	Moderate adverse	Minor adverse	Negligible	Negligible
Lower Misbourne North LCA	Negligible	Negligible	Negligible	Negligible
Little Chalfont LCA	Negligible	Negligible	Negligible	Negligible
Layters Green LCA	Negligible	Negligible	Negligible	Negligible
Misbourne Upper South LCA	Moderate adverse	Minor adverse	Negligible	Negligible
Penn South LCA	Moderate adverse	Minor adverse	Negligible	Negligible
Hyde Heath South LCA	Negligible	Negligible	Negligible	Negligible

2 Visual assessment matrix

2.1.1 Table 3 summarises the assessment of significance for all the representative viewpoints identified within the study area. These are ordered from south to north along the route of the Proposed Scheme. The assessment of significant effects is presented in Volume 2, CFA Report 8, Section 9. Not significant effects (minor or negligible) are summarised in Part 4 of this volume. For some viewpoints it has been identified that no further assessment is required in one of the assessment years/seasons. This is on the basis that through application of professional judgement it has been determined that no significant effects would occur and therefore no further assessment has been undertaken. The night-time assessment has only been undertaken for residential, hotel and healthcare receptors with a view of proposed continuous lighting during either construction or operation.

Table 3: Visual assessment matrix

Viewpoints		Construction		Operation year 1 (2026)			Operation year 15 (2041)	Operation year 60 (2086)
		Winter	Night-time	Winter	Summer	Night-time	summer	summer
061.2.001	Views north-east from Denham Lane to the north-east of Chalfont St Peter	Moderate adverse	Negligible	Minor adverse	Minor adverse	No further assessment required	Negligible	Negligible
061.2.002	Views east from properties adjacent to Shire Lane	Major adverse	Moderate adverse	Moderate adverse	Minor adverse	No further assessment required	Minor adverse	Negligible
064.2.001	Views south-east from Hornhill Road, Shire Lane Path representative of residential properties on the southern edge of Horn Hill	Moderate adverse	Moderate adverse	Moderate adverse	Minor adverse	No further assessment required	Minor adverse	Negligible
065.3.001	Views north from PRoW (Footpath CSG/32/1)	Major adverse	No further assessment required	Moderate adverse	Moderate adverse	No further assessment required	Minor adverse	Negligible
065.4.002	Views west from Chesham Lane	Moderate adverse	No further assessment required	Moderate adverse	Moderate adverse	No further assessment required	Minor adverse	Negligible
065.2.003	View north from Chesham Lane at the northern edge of Chalfont St Peter	Major adverse	No further assessment required	Moderate adverse	Minor adverse	No further assessment required	Minor adverse	Negligible
071.2.001	View north-west from Bottom House Farm Lane	Moderate adverse	No further assessment required	Moderate adverse	Minor adverse	No further assessment required	Minor adverse	Negligible
071.3.002	View north from PRoW (Footpath Col/2/2)	Major adverse	No further assessment required	Moderate adverse	Moderate adverse	No further assessment required	Minor adverse	Negligible
072.2.001	View west from Bottom House Farm Lane	Major adverse	No further assessment required	Moderate adverse	Moderate adverse	No further assessment required	Minor adverse	Negligible
077.4.001	View north-east from New Road north of Coles Hill	Minor adverse	No further assessment required	Minor adverse	Negligible	No further assessment required	Negligible	Negligible
077.4.002	Views west from Whielden Lane.	Moderate adverse	No further assessment required	Moderate adverse	Moderate adverse	No further assessment required	Minor adverse	Negligible
078.2.001	View south-west from Piggotts Orchard	Moderate adverse	No further assessment required	Moderate adverse	Minor adverse	No further assessment required	Negligible	Negligible
078.3.002	View west from PRoW (Footpath AMS/21/3) to the south of Amersham Old Town	Moderate adverse	No further assessment required	Moderate adverse	Moderate adverse	No further assessment required	Minor adverse	Negligible
078.3.003	View south-west from PRoW (Footpath AMS/6/3) west of Amersham	Minor adverse	No further assessment required	Negligible	Negligible	No further assessment required	Negligible	Negligible
078.5.004	View south-west from Amersham Hospital	Minor adverse	No further assessment required	Negligible	Negligible	No further assessment required	Negligible	Negligible
081.3.001	View north-west from PRoW (Footpath AMS/26/3), South Bucks Way within the grounds of Shardeloes	Moderate adverse	No further assessment required	Minor Adverse	Minor adverse	No further assessment required	Minor adverse	Negligible

Part 4 Schedule of not significant effects

1 Temporary effects arising during construction

1.1.1 Due to the scale of the construction activities works would be highly visible in many locations and would have the potential to give rise to significant effects which cannot be mitigated. This is commonplace with construction of major infrastructure projects but it should be noted that these effects are temporary in nature and relate to the peak construction phase. Effects during other phases of works are likely to be less due to less construction equipment being required at the time and a reduced intensity of construction activity.

1.2 Landscape assessment

1.2.1 Table 4 summarises the assessment for all the LCA identified within the study area which are considered to experience not significant effects (minor or negligible) during construction of the Proposed Scheme. These are ordered from south to north along the route of the Proposed Scheme. The assessment of significant effects is presented in Volume 2, CFA Report 8, Section 9.

Table 4: Schedule of not significant landscape effects during construction

Landscape character area	Description of effect
Lower Misbourne North LCA	Construction of the ventilation and intervention (vent) shaft in the neighbouring Chalfont St Peter North LCA will involve no loss of characteristic landscape elements within the LCA. The presence of construction activity in the adjacent LCA will not impact on the landscape in the Lower Misbourne North LCA. Therefore the magnitude of change to landscape character is considered to be negligible. Assessed alongside the medium sensitivity of the character area this will result in negligible effects.
Little Chalfont LCA	Construction will involve no loss of characteristic landscape elements within the LCA and the presence of construction activity relating to the vent shafts in the adjacent LCA will not impact on the landscape. Therefore the magnitude of change to landscape character is considered to be negligible. Assessed alongside the high sensitivity of the character area this will result in negligible effects.
Layers Green LCA	Construction activity relating to the construction of two vent shafts in the neighbouring LCA will involve no loss of characteristic landscape elements within the LCA and the presence of construction activity will not impact on the landscape. Therefore the magnitude of change to landscape character is considered to be negligible. Assessed alongside the high sensitivity of the character area this will result in negligible effects.
Hyde Heath South LCA	Construction will involve no loss of characteristic landscape elements within the LCA. The presence of construction activity in the adjacent LCA will not impact on the landscape in the Hyde Heath South LCA. Therefore the magnitude of change to landscape character is considered to be negligible. Assessed alongside the high sensitivity of the character area this will result in negligible effects.

1.3 Visual assessment

1.3.1 Table 5 summarises the assessment for all the representative viewpoints identified within the study area which are considered to experience not significant effects (minor or negligible) during construction of the Proposed Scheme. These are ordered from south to north along the route of the Proposed Scheme. The assessment of significant effects is presented in Volume 2, CFA Report 8, Section 9. The construction assessment has been undertaken during winter in line with best practice guidance to ensure a robust assessment. In some cases visibility of construction activities may be reduced during summer when vegetation, if present in a view, would be in leaf.

Table 5: Schedule of not significant visual effects during construction

Viewpoint	Description of effect
061.2.001 Views north-east from Denham Lane to the north-east of Chalfont St Peter	Additional lighting associated with construction of the Proposed Scheme is considered to be a negligible magnitude of change resulting in negligible effects.
077.4.001 View north-east from New Road north of Coles Hill	<p>The construction activity associated with the Amersham vent shaft will be partially screened and filtered by intervening trees and hedgerows. The most prominent element of construction will be long distant views of cranes in the background. This will result in a low magnitude of change.</p> <p>The low magnitude of change, assessed alongside the medium sensitivity of the receptor, will result in minor adverse effects.</p>
078.3.003 View south-west from PRoW (Footpath AMS/6/3) west of Amersham	<p>The construction activity in the background of the view across the valley will be screened by intervening trees and field boundaries. The intervening vegetation and built form of Old Amersham Town will also screen and filter views. The foreground and middle ground of the view will remain unchanged. Therefore the magnitude of change is considered to be low.</p> <p>The low magnitude of change assessed against the high sensitivity of the receptor will result in minor adverse effects.</p>

Viewpoint	Description of effect
078.5.004 View south-west from Amersham Hospital	<p>The construction activity in the background of the view will be partially screened by intervening trees. There will be higher level filtered views of the tops of cranes in the background. Therefore the magnitude of change is considered to be low.</p> <p>The low magnitude of change assessed against the medium sensitivity of the receptor will result in minor adverse effects.</p>

2 Permanent effects arising during operation

2.1 Landscape assessment

2.1.1 Table 6 summarises the assessment for all the LCA identified within the study area which are considered to experience not significant effects (minor or negligible) during the operation of the Proposed Scheme. These are ordered from south to north along the route of the Proposed Scheme. The year 15 and year 60 assessments take into account the further integration of the Proposed Scheme into the landscape following greater maturity of the proposed planting. The assessment of significant effects is presented in Volume 2, CFA Report 8, Section 9.

Table 6: Schedule of not significant landscape effects during operation

Landscape character area	Description of effect - operation year 1 (2026)	Description of effect - operation year 15 (2041)	Description of effect - operation year 60 (2086)
Maple Cross Slopes North LCA	The Proposed Scheme does not pass through the LCA. The Proposed Scheme is within tunnel in the Chalfonts and Amersham study area. On the construction site beside the portal in the adjacent CFA7 there will be a change to the existing landform but it should not be especially noticeable after the land has been restored to cereal crops. The Proposed Scheme is in deep cutting within the adjacent CFA7. Therefore the proximity of the scheme outside of the character area is considered to have a low magnitude of change. The low magnitude of change assessed alongside the medium sensitivity of the LCA will have a minor change to the LCA in the adjacent CFA7. It will result in minor adverse effects.	Mitigation planting around the vent shaft headhouse and Proposed Scheme in cutting in the adjacent LCA will have established an effective screen by year 15 resulting in a reduction in the magnitude of change and a negligible effect. The negligible magnitude of change combined with the medium sensitivity of the character area will result in negligible effects.	The established mitigation planting will result in the Proposed Scheme being a component that does not influence the overall character of the setting resulting in negligible effects.
Chalfont St Peter North LCA	<p>The Proposed Scheme is predominantly in tunnel within this LCA. The Chalfont St Peter vent shaft will be constructed near Chalfont St Peter. The scale of direct impact is relatively small. The scale of the vent shaft within the overall character areas is relatively small therefore the magnitude of change overall is considered to be low.</p> <p>The low magnitude of change assessed alongside the medium sensitivity of the LCA will result in minor adverse effects.</p>	<p>By year 15 the planting will be significantly more established and the vent shaft headhouse will be predominantly screened within the dense woodland planting. The magnitude of change is considered to be negligible.</p> <p>The negligible magnitude of change combined with the medium sensitivity of the Character Area will result in a change being compatible with the existing character and negligible effects.</p>	Established mitigation planting will screen the vent shaft headhouse making it an inconspicuous characteristic of the setting. Resulting in negligible effects.
Lower Misbourne North LCA	<p>The Proposed Scheme will be in tunnel as it passes through the LCA. The vent shaft headhouse located within the adjacent LCA of Chalfont St Peter North will be partially screened by the surrounding vent shaft embankments. Views will be further filtered by a combination of the recent mitigation planting and existing mature hedgerows. The design will integrate into the existing landscape therefore the magnitude of change overall is considered to be negligible.</p> <p>The negligible magnitude of change assessed alongside the medium sensitivity of the LCA will result in negligible effects.</p>	<p>The establishment of the proposed mitigation planting will further screen and integrate the proposed vent shaft headhouse in the adjacent LCA.</p> <p>Within the character area the Proposed Scheme is in tunnel. The impact will remain as negligible effects.</p>	Within the character area the Proposed Scheme is in tunnel. Established mitigation planting will screen the vent shaft headhouse in the adjacent LCA resulting in negligible effects.
Little Chalfont LCA	The Proposed Scheme does not pass through the character area. In the adjacent LCA the Proposed Scheme is within tunnel with vent shaft headhouses being above ground. The introduction of these elements within other LCA will not influence the overall character of the setting of this LCA. The negligible magnitude of change assessed alongside the high sensitivity will result in negligible effects.	The Proposed Scheme does not pass through the LCA. The impacts will remain as negligible effects.	The Proposed Scheme does not pass through the LCA. The impacts will remain as negligible effects.
Layers Green LCA	The Proposed Scheme is outside of the character area and within tunnel in the adjacent LCA. Two vent shafts are proposed within the adjacent LCA but will not be perceptible. The negligible magnitude of change alongside the high sensitivity will result in negligible significance of effects.	The Proposed Scheme does not pass through the LCA. The impacts will remain as negligible effects.	The impacts will remain as negligible effects.

Landscape character area	Description of effect - operation year 1 (2026)	Description of effect - operation year 15 (2041)	Description of effect - operation year 60 (2086)
Misbourne Upper South LCA	The Proposed Scheme will pass through the LCA in tunnel. The introduction of a vent shaft headhouse which will be integrated into the existing landscape through mitigation planting and will result in a low magnitude of change. This will result in a low magnitude of change which alongside a high sensitivity; will result in minor adverse effects.	<p>The establishment of mitigation planting around the vent shaft will further integrate the Proposed Scheme into the surrounding landscape reducing the magnitude of change to negligible.</p> <p>The negligible magnitude of change combined with the high sensitivity of the character area will result in and change being compatible with the existing character and negligible effects.</p>	Established mitigation planting will screen the vent shaft headhouse in the LCA resulting in negligible effects.
Penn South LCA	<p>The Proposed Scheme passes through the Penn South LCA within tunnel with a vent shaft located west of Bottom House Farm Lane. The proposed vent shaft headhouse design and associated auto-transformer feeder station integration will reduce its impact on the LCA. As such the magnitude of change will be low. The vent shaft is located in the far east of the LCA and will not be perceptible in the large majority of the LCA.</p> <p>The low magnitude of change combined with the high sensitivity of the LCA will be in slight variance with the existing character and therefore minor adverse effects.</p>	<p>By year 15, the vent shaft will be integrated into the existing tree belt by the mitigation planting. The mitigation planting and existing vegetation to the east of the vent shaft headhouse will be approximately 50m in depth and will form a substantial visual screen. This will screen views of the vent shaft headhouse and auto-transformer feeder station and therefore reduce the magnitude of change to a negligible effect.</p> <p>The negligible magnitude of change combined with the high sensitivity of the LCA will result in any change being slightly at variance with the existing character and negligible effects.</p>	Established mitigation planting will further screen the vent shaft headhouse and auto-transformer feeder station. This will further integrate it into the LCA. This will result in negligible effects.
Hyde Heath South LCA	<p>The Proposed Scheme will lie outside of the Hyde Heath South LCA. Vent shafts in adjacent LCA will not be visible due to intervening topography and vegetation. The addition of the vent shaft will not influence the overall character or setting. As such the magnitude of change will be negligible.</p> <p>The negligible magnitude of change combined with the high sensitivity of the LCA will be in slight variance with the existing character and therefore experience negligible effects.</p>	The Proposed Scheme will lie outside of the Hyde Heath South LCA. Vent shafts in adjacent LCA will not be visible due to intervening topography and vegetation. The impact will remain as negligible effects.	The impacts will remain as negligible effects.

2.2 Visual assessment

2.2.1 Table 7 summarises the assessment for all the representative viewpoints identified within the study area which are considered to experience not significant effects (minor or negligible) during operation of the Proposed Scheme. These are ordered from south to north along the route of the Proposed Scheme. The year 15 and year 60 assessments take into account how greater maturity of proposed planting may further screen views of the Proposed Scheme. The assessment of significant effects is presented in Volume 2, CFA Report 8, Section 9.

Table 7: Schedule of not significant visual effects during operation

Viewpoint	Description of effect – operation year 1 (2026)		Description of effect – operation year 15 (2041)	Description of effect – operation year 60 (2086)
	Winter	Summer	summer	summer
061.2.001: Views north-east from Denham Lane to the north-east of Chalfont St Peter	<p>In the winter of year 1 mitigation planting will not yet be established and will not provide screening. The rising landform and existing tree lined hedgerows, however, will filter views of the Proposed Scheme during winter months resulting in a low magnitude of change.</p> <p>The low magnitude of change combined with the high sensitivity of the receptor will result in a discernible deterioration in the existing view and minor adverse effects.</p>	<p>In the summer of year 1, mitigation planting will not yet be established and will not provide screening. The existing tree lined hedgerows, however, will filter views of the Proposed Scheme during summer months resulting in a low magnitude of change.</p> <p>The low magnitude of change, combined with the high sensitivity of the receptor, will result in a discernible deterioration in the existing view and minor adverse effects.</p>	<p>Background views will be filtered across the M25 associated vegetation. As the mitigation planting becomes more established it will integrate the Proposed Scheme into the landscape and will effectively screen the Proposed Scheme and associated structures. The Proposed Scheme will become less perceptible in the landscape and therefore, the magnitude of change is considered to be negligible.</p> <p>The negligible magnitude of change, combined with the high sensitivity of the receptor, will result in a discernible deterioration in the existing view and negligible adverse effects.</p>	<p>The continued growth of vegetation in the middle and background will further screen views. Therefore, the magnitude of change is considered to be negligible.</p> <p>The negligible magnitude of change, assessed alongside the high sensitivity of the receptor, will result in negligible effects.</p>

Viewpoint	Description of effect – operation year 1 (2026)		Description of effect – operation year 15 (2041)	Description of effect – operation year 60 (2086)
	Winter	Summer	summer	summer
o61.2.002 Views east from properties adjacent to Shire Lane	Significantly affected: refer to Volume 2.	In the summer of year 1, mitigation planting will not yet be established and will not provide screening. The existing adjacent tree and shrub vegetation, however, will further filter and screen some aspects of views of the Proposed Scheme during summer months, resulting in a low magnitude of change. The low magnitude of change, combined with the high sensitivity of the receptor, will result in a discernible deterioration in the existing view and minor adverse effects.	By year 15 the proposed Chiltern tunnel south portal mitigation planting will have further established filtering views along the route in cutting. The Proposed Scheme will become less perceivable in the landscape and therefore, the magnitude of change is considered to be low. The low magnitude of change, combined with the high sensitivity of the receptor, will result in a discernible deterioration in the existing view and minor adverse effects.	By year 60 the continued incremental growth of the existing and proposed planting will further screen and integrate the Proposed Scheme. Therefore, the magnitude of change is considered to be negligible. The negligible magnitude of change, assessed alongside the medium sensitivity of the receptor, will result in negligible effects.
o64.2.001: Views south-east from Hornhill Road, Shire Lane Path representative of residential properties on the southern edge of Horn Hill The summer view of the Proposed Scheme from this location during year 15 of operation is illustrated in the photomontage in LV-01-228 (Volume 2, CFA8 Map Book).	Significantly affected: refer to Volume 2.	During the summer months intervening garden and roadside vegetation will further screen views south-east resulting in a reduction of magnitude of change to low. The low magnitude of change, combined with the high sensitivity of the receptor, will result in a discernible deterioration in the existing view and minor adverse effects.	This viewpoint is representative of the typical view east into the adjacent CFA7 from residential properties within Horn Hill. Background views will be filtered across the M25. As the mitigation planting becomes more established it will integrate the Proposed Scheme into the landscape and will effectively screen the Proposed Scheme and associated structures. The Proposed Scheme will become less perceptible in the landscape and therefore, the magnitude of change is considered to be low. The low magnitude of change, combined with the high sensitivity of the receptor, will result in a discernible deterioration in the existing view and minor adverse effects.	Established mitigation planting within the adjacent CFA7 within the middle and background will further screen views. Therefore, the magnitude of change is considered to be negligible. The negligible magnitude of change, assessed alongside the medium sensitivity of the receptor, will result in negligible effects.
o65.3.001: Views north from PRow (Footpath CSG/32/1)	Significantly affected: refer to Volume 2.	Significantly affected: refer to Volume 2.	This viewpoint is representative of views from PRow (Footpath CSG/32/1). The outlook will predominantly be of woodland block with heavily filtered views through dense woodland belt towards the vent shaft. By year 15 mitigation planting will be more established and will help integrate the built form into the landscape. Therefore the magnitude of change is considered to be low. The low magnitude of change, combined with the high sensitivity of the receptor, will result in a discernible deterioration in the existing view and minor adverse effects.	The continued growth of vegetation in the foreground will screen views. Therefore, the magnitude of change is considered to be negligible. The negligible magnitude of change, assessed alongside the medium sensitivity of the receptor will result in negligible effects.
o65.4.002: Views west from Chesham Lane	Significantly affected: refer to Volume 2.	Significantly affected: refer to Volume 2.	This viewpoint is indicative of views from Chesham Lane. There will be foreground views further established planting. Mitigation planting will become a more effective screen by year 15. Therefore the magnitude of change is considered to be medium. The medium magnitude of change, combined with the low sensitivity of the receptor, will result in a discernible deterioration or improvement in the existing view and minor adverse effects.	The continued growth of vegetation in the foreground of the view will screen views of the vent shaft. By year 60 the vent shaft will be integrated into the surrounding vegetation within woodland block. Therefore, the magnitude of change is considered to be negligible. The negligible magnitude of change, assessed alongside the medium sensitivity of the receptor, will result in negligible effects.

Viewpoint	Description of effect – operation year 1 (2026)		Description of effect – operation year 15 (2041)	Description of effect – operation year 60 (2086)
	Winter	Summer	summer	summer
065.2.003: View north from Chesham Lane at the northern edge of Chalfont St Peter	Significantly affected: refer to Volume 2.	<p>During summer of Year 1 new planting will yet to have established, however existing vegetation in gardens and along field boundaries will further filter views towards the proposed vent shaft. This will reduce the magnitude of change to low during the summer months.</p> <p>The low magnitude of change, combined with the high sensitivity of the receptor, will result in a discernible deterioration in the existing view and minor adverse effects.</p>	<p>This viewpoint is representative of residential properties located at the northern edge of Chalfont St Peter. There will be background filtered views of the vent shaft from the edge of Chalfont St Peter. As the planting becomes more established this will filter the views through to the vent shaft. Taking the mitigation planting into consideration the magnitude of change is considered to be low.</p> <p>The low magnitude of change, combined with the high sensitivity of the receptor, will result in a discernible deterioration in the existing view and minor adverse effects.</p>	Established mitigation planting, which surrounds the proposed vent shaft will by Year 60 have integrated it into the existing landscape. It will be fully screened from this location. Therefore, the magnitude of change is considered to be negligible. The negligible magnitude of change, assessed alongside the medium sensitivity of the receptor will result in negligible effects.
071.2.001: View north-west from Bottom House Farm Lane	Significantly affected: refer to Volume 2.	<p>Newly planted vegetation will not yet form an effective visual screen by summer of year 1. Existing intervening field boundary vegetation, however, will further screen views of the proposed vent shaft headhouse and associated auto-transformer feeder station from this location reducing the magnitude of change to low.</p> <p>The low magnitude of change, combined with the high sensitivity of the receptor, will result in a discernible deterioration in the existing view and minor adverse effects.</p>	<p>This viewpoint is indicative of views from the north-western edge of Bottom Farm Lane. There will be middle ground filtered views through existing field boundary vegetation towards the vent shaft headhouse and auto-transformer feeder station. Mitigation planting and earthworks will greatly reduce the visibility of the vent shaft by year 15. Therefore, the magnitude of change will reduce to low.</p> <p>The low magnitude of change combined with the high sensitivity of the receptor will result in a discernible deterioration in the existing view and minor adverse effects.</p>	<p>The continued growth of vegetation around the vent shaft will screen views and integrate it into the existing adjacent woodland block.</p> <p>Therefore, the magnitude of change is considered to be negligible. The negligible magnitude of change, assessed alongside the medium sensitivity of the receptor, will result in negligible effects.</p>
071.3.002: View north from PRoW (Footpath Col/2/2)	Significantly affected: refer to Volume 2.	Significantly affected: refer to Volume 2.	<p>This viewpoint is indicative of views from PRoW (Footpath CSG/47/1). The outlook will contain filtered middle ground views towards the vent shaft headhouse and auto-transformer feeder station, through field boundary vegetation towards the vent shaft. Mitigation planting will help to integrate the vent shaft into the existing wooded landscape. Therefore, the magnitude of change is considered to be low.</p> <p>The low magnitude of change, combined with the high sensitivity of the receptor, will result in a discernible deterioration in the existing view and minor adverse effects.</p>	<p>The continued growth of vegetation around the vent shaft headhouse and auto-transformer feeder station will screen views and integrate it into the existing adjacent woodland block.</p> <p>Therefore, the magnitude of change is considered to be negligible. The negligible magnitude of change, assessed alongside the medium sensitivity of the receptor, will result in negligible effects.</p>
072.2.001: View west from Bottom House Farm Lane	Significantly affected: refer to Volume 2.	Significantly affected: refer to Volume 2.	<p>This viewpoint is representative of views from Bottom House Farm Lane. There will be background filtered views through existing field boundary vegetation. The proposed mitigation planting and existing vegetation will further screen views of the vent shaft headhouse and auto-transformer feeder station. Therefore the magnitude of change will be low.</p> <p>The low magnitude of change, assessed alongside the high sensitivity of the receptor, will result in a discernible deterioration in the existing view and therefore result in minor adverse effects.</p>	<p>The continued growth of vegetation around the vent shaft headhouse and auto-transformer feeder station and the proposed extension to the existing woodland block will screen views and integrate it into the existing landscape.</p> <p>Therefore, the magnitude of change is considered to be negligible. The negligible magnitude of change, assessed alongside the medium sensitivity of the receptor, will result in negligible effects.</p>

Viewpoint	Description of effect – operation year 1 (2026)		Description of effect – operation year 15 (2041)	Description of effect – operation year 60 (2086)
	Winter	Summer	summer	summer
077.4.001: View north-east from New Road north of Coles Hill	<p>This viewpoint is representative of views from New Road looking north. There will be long distance background views from an elevated position of the proposed Amersham vent shaft. Existing vegetation and proposed bunds will filter and screen low level views. This will result in a low magnitude of change.</p> <p>The low magnitude of change, assessed alongside the medium sensitivity of the receptor, will result in minor adverse effects.</p>	<p>During the summer months existing roadside vegetation along Whielden Lane will further filter views of the proposed vent shaft. This will result in having a negligible magnitude of change.</p> <p>The negligible magnitude of change, assessed alongside the medium sensitivity of the receptor, will result in negligible effects.</p>	<p>During year 15 operation the view of the proposed vent shaft will be further filtered and partially screened. Existing vegetation will also form a denser screen during the summer months.</p> <p>Therefore the magnitude of change is considered to be negligible.</p> <p>The negligible magnitude of change, assessed alongside the medium sensitivity of the receptor, will result in negligible effects.</p>	<p>In the background of the view the continued growth of vegetation around the proposed vent shaft will have further established, screening views from this location. Therefore the magnitude of change is considered to be negligible.</p> <p>The negligible magnitude of change, assessed alongside the medium sensitivity of the receptor, will result in negligible effects.</p>
077.4.002: Views west from Whielden Lane	Significantly affected: refer to Volume 2.	Significantly affected: refer to Volume 2.	<p>This viewpoint is representative of views west from Whielden Lane. At year 15 of operation there will be foreground glimpsed and filtered views towards the vent shaft located within the existing tree belt and proposed mitigation planting. There will be partial views through to the vent shaft along the access road to the Proposed Scheme. Taking into consideration the improved screening vegetation the magnitude of change is considered to be low.</p> <p>The low magnitude of change, combined with the low sensitivity of the receptor, will result in a discernible deterioration in the existing view and minor adverse effects.</p>	<p>The continued growth of vegetation in the foreground of the view will further filter and screen views towards the proposed vent shaft. Therefore the magnitude of change is considered to be negligible.</p> <p>The negligible magnitude of change, assessed alongside the medium sensitivity of the receptor, will result in negligible effects.</p>
078.2.001: View south-west from Piggotts Orchard	Significantly affected: refer to Volume 2.	<p>In the summer of Year 1 operation, proposed mitigation planting will have yet to establish. Although intervening garden and roadside vegetation will partially screen and filter views to the vent shaft during the summer months. The magnitude of change is considered to have a low adverse effect.</p> <p>The low magnitude of change, combined with the high sensitivity of the receptor, will result in a discernible deterioration in the existing view and minor adverse effects.</p>	<p>This viewpoint is representative of views from Piggotts Orchard looking west. The middle ground elevated views across the valley will be greatly improved by the mitigation planting which will screen views of the vent shaft. Existing planting will also interrupt views through to the vent shaft. Therefore, the magnitude of change is considered to be negligible.</p> <p>The negligible magnitude of change, combined with the high sensitivity of the receptor, will result in no perceptible deterioration or improvement in the existing view and negligible effects.</p>	<p>The continued growth of vegetation in the middle and background will screen views. Therefore the magnitude of change is considered to be negligible.</p> <p>The negligible magnitude of change, assessed alongside the medium sensitivity of the receptor, will result in negligible effects.</p>
078.3.002: View west from PRoW (Footpath AMS/21/3) to the south of Amersham Old Town	Significantly affected: refer to Volume 2.	Significantly affected: refer to Volume 2.	<p>This viewpoint is representative of views from PRoW (Footpath AMS/21/3). By year 15 there will be filtered middle ground views through field boundary vegetation towards the vent shaft. Views will be filtered and screened by both mitigation planting and existing vegetation. Therefore the magnitude of change is considered to be low.</p> <p>The low magnitude of change, combined with the high sensitivity of the receptor, will result in a discernible deterioration or improvement in the existing view and therefore minor adverse effects.</p>	<p>The continued growth of vegetation in the middle ground will screen views towards the proposed vent shaft. Therefore the magnitude of change is considered to be negligible. The negligible magnitude of change, assessed alongside the medium sensitivity of the receptor, will result in negligible effects.</p>

Viewpoint	Description of effect – operation year 1 (2026)		Description of effect – operation year 15 (2041)	Description of effect – operation year 60 (2086)
	Winter	Summer	summer	summer
o78.3.003 View south-west from PRoW (Footpath AMS/6/3) west of Amersham	<p>There will be long distant middle ground filtered views of the proposed scheme. The existing built form of Amersham Old Town will also screen views towards the proposed vent shaft. This will result in a negligible magnitude of change.</p> <p>The negligible magnitude of change, assessed alongside the medium sensitivity of the receptor, will result in negligible effects.</p>	<p>During the summer months intervening middle ground vegetation will further filter views of the proposed vent shaft. Therefore the magnitude of change remains as negligible.</p> <p>The negligible magnitude of change, assessed alongside the medium sensitivity of the receptor, will result in negligible effects.</p>	<p>By year 15 there will be filtered middle ground views through field boundary vegetation towards the vent shaft. Views will be filtered and screened by both mitigation planting and existing vegetation. Therefore the magnitude of change will remain as negligible.</p> <p>The negligible magnitude of change, assessed alongside the medium sensitivity of the receptor, will result in negligible effects.</p>	<p>The continued growth of vegetation in the middle ground of the view around the proposed vent shaft will further screen views. Therefore the magnitude of change is considered to be negligible. The negligible magnitude of change, assessed alongside the medium sensitivity of the receptor, will result in negligible effects.</p>
o78.5.004 View south-west from Amersham Hospital	<p>Vegetation adjacent to the hospital and the road will screen views towards the proposed Amersham vent shaft and headhouse. This will result in a negligible magnitude of change.</p> <p>The negligible magnitude of change, assessed alongside the medium sensitivity of the receptor, will result in negligible effects.</p>	<p>During the summer months existing roadside vegetation will screen views to the Amersham vent shaft headhouse in the background. This will result in having a negligible magnitude of change.</p> <p>The negligible magnitude of change, assessed alongside the medium sensitivity of the receptor, will result in negligible effects.</p>	<p>During year 15 the view will remain unchanged. Therefore the magnitude of change is considered to be negligible.</p> <p>The negligible magnitude of change, assessed alongside the medium sensitivity of the receptor, will result in negligible effects.</p>	<p>During year 60 the view will remain unchanged. Therefore the magnitude of change is considered to be negligible.</p> <p>The negligible magnitude of change, assessed alongside the medium sensitivity of the receptor, will result in negligible effects.</p>
o81.3.001: View north-west from PRoW (Footpath AMS/26/3), South Bucks Way within the grounds of Shardeloes	<p>The existing roadside vegetation in the middle ground of the view will filter views towards the proposed vent shaft. The surrounding bund will partially screen low level views of the vent shaft. This will result in a low magnitude of change. The low magnitude of change, assessed alongside the medium sensitivity of the receptor, will result in minor adverse effects.</p>	<p>During the summer months intervening middle ground vegetation will further filter views of the proposed vent shaft. Therefore the magnitude of change results as being low.</p> <p>The low magnitude of change, assessed alongside the medium sensitivity of the receptor, will result in minor adverse effects.</p>	<p>This viewpoint is representative of views from PRoW (Footpath AMS/26/3) within Shardeloes grounds. The view by year 15 will contain filtered middle ground views through field boundary vegetation towards the vent shaft. The earthworks, mitigation planting and existing planting will screen views through the approximately 20m deep woodland belt. Therefore the magnitude of change is considered to be low.</p> <p>The negligible magnitude of change, combined with the high sensitivity of the receptor, will result in a discernible deterioration in the existing view and minor adverse effects.</p>	<p>The continued growth of vegetation in the middle will visually integrate the proposed planting into the woodland block beyond and the roadside vegetation. Therefore the magnitude of change is considered to be negligible.</p> <p>The negligible magnitude of change, assessed alongside the medium sensitivity of the receptor, will result in negligible effects.</p>

Part 5 References

Hertfordshire County Council (2001), *Hertfordshire Landscape Character Assessment*

Land Use Consultants (2011), *Chiltern District Landscape Character Assessment: Prepared for Buckinghamshire County Council and Chiltern District Council*

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